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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/259,361	02/26/1999	CLIFTON MALCOLM NOCK	RO998-203	5211

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MR DEREK P MARTIN  
MARTIN & ASSOCIATES  
221 W 4TH STREET SUITE 2  
P O BOX 548  
CARTHAGE, MO 64836

EXAMINER

LAO, SUE X

ART UNIT

PAPER NUMBER

2126

DATE MAILED: 01/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/259,361

Applicant(s)  
Nock et al

Examiner  
S. Lao

Art Unit  
2126



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Oct 23, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

### DETAILED ACTION

1. Claims 1-20 are pending. This action is in response to the amendment filed 10/23/2002. Applicant has amended claims 1, 7, 8, 11, 13, 15 and 16.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites "the datastream class" on line 11. There is insufficient antecedent basis for this limitation in the claim. For the purpose of art rejection, it is interpreted as "a datastream class", as best understood and as it appears to be.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Borst et al (WO 98/02813) in view of JDK 1.1 (Java Object Serialization Specification, Revision 1.3, JDK 1.1).

As to claim 16, Borst teaches (page 11, line 5 to page 14, line 31; page 19, line 12 to page 20, line 9 and page 22, lines 22-29) datastream factory that create (Factory interface, TransportFactory interface), datastream class instance (Stream object, TransportStream object), datastream receive mechanism (Get and Put operations),

populate (write data to a stream), at least one object method (Get and Put operations). The device of Borst inherently has a signal bearing media.

While Borst uses an identifier (object reference) to identify a stream object created by a Factory such that all subsequent stream operations must be addressed to this object (page 11, line 5 to page 14, line 31; page 19, line 12 to page 20, line 9 and page 22, lines 22-29), Borst does not teach that the identifier corresponds to a received data stream, nor the information used to populate the stream object created by the Factory is the information contained in the received datastream.

JDK teaches (sections 1.2 and 1.3) stream objects and operations (writing to an object stream, reading from an object stream), wherein a newly created stream object (ObjectInputStream 's') corresponds to an identifier ('in') in a received datastream (InputStream) such that the received datastream serves as the source stream for populating (read from the InputStream) (page 3, section 1.3). Given the teaching of JDK, it would have been obvious to allow the datastream factory of Borst to use the identifier corresponding to an identifier in a received datastream and allow the populating to use information contained in the received datastream.

The motivations to combine the teachings of Borst and JDK include the following. Borst desires validity/security checking during stream operations (paragraph bridging pages 22 and 23) but does not provide a mechanism to do so. JDK on the other hand, provides a mechanism for implementing validity/security checking during stream operations (pages 43-46). Therefore, one of ordinary skill in the art would have been motivated to use the mechanism of JDK to perform validity/security checking in Borst.

As to claim 17, Borst teaches recordable media (disk subsystem 43).

As to claim 18, Borst teaches transmission media (network connections 51, 53).

As to claim 19, Borst teaches datastream processing mechanism (Get, Put, Destroy and Cancel operations, page 12, lines 22-23).

As to claim 20, Borst teaches datastream send mechanism (Put operation).

As to claim 1, note the rejection of claim 16 above. Claim 1 additionally recites processor, memory and second computer system. Borst teaches processor (CPU 45, 85),

memory (memory 44, 84) and second computer system (client computer, server computer, gateways, pages 6, 7, 24). Borst also teaches "Streaming can occur in both directions" (page 27, line 27). The combined teaching of Borst and JDK would have provided that the received datastream is one received from a second computer system.

As to claim 2, note the rejection of claim 19 above.

As to claim 3, note the rejection of claim 20 above.

As to claim 4, it is covered by claim 1 (datastream receive mechanism ... executed by).

As to claim 5, note the rejection of claim 19 above.

As to claim 6, note the rejection of claim 3 above.

As to claim 7, it is covered by claim 1 except for the first and second computers, network connection, and active datastream. Borst teaches first and second computers (multiple computers, pages 6-7) and network connection (path, page 19, lines 20-30; socket, page 22, lines 22-29). Note the received datastream of claim 1 is an active datastream since it is sent and processed.

6. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Borst et al in view of JDK 1.1 as applied to claims 1-7, 16-20 and further in view of Susic ("Dynascope: A Tool for Program Directing").

As to claim 8, note the rejection of claim 1 for means' for creating and populating. Borst as modified by JDK teaches means for constructing (Factory interface) and means for sending (Put operation, send on a socket, pages 19-20) a datastream.

Borst as modified by JDK does not teach that the datastream constructed and sent is an active datastream which identifies executable code for processing the active datastream.

Susic teaches stream operations, wherein a datastream is an active datastream (executable stream) which identifies executable code for processing (program counter evpc, event instruction evinst) the active datastream (process event in the execution stream). See pages 13-14, section 2.2. Given the teaching of Susic, it would have been

obvious to include an active datastream into the datastreams being sent across the network of Borst. A motivation to do so would have been to provide extensibility and adaptability (Sosic, dealing with dynamics of program execution, page 12, section 1) desirable in Borst (Borst, page 4, lines 27-31).

As to claims 9 and 10, note the respective rejections of claims 2 and 3 above.

As to claim 11, it is covered by claim 8 except for method for communicating. Borst clearly teaches communicating method (delivering and receiving) between computers (abstract).

As to claim 12, note the rejection of claim 2 above.

As to claim 13, note the rejection of claim 16 (receive mechanism).


As to claim 14, note the rejection of claim 6 above.

As to claim 15, note the rejections of claims 11-14. It is noted that an active datastream object identifying its datastream class would have been obvious based on object naming principle in object-oriented programming.

7. Applicant's arguments filed 10/23/2002 have been considered but are moot in view of the new ground(s) of rejection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7238 for After Final communications, (703) 746-7239 for Official communications and (703) 746-7240 for Non-Official/Draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Sue Lao   
December 27, 2002